THE
TRAINING SCHOOL BULLETIN

JUNE 1916

How happy we are when we know ourselves to be the best informed in the group in which we find ourselves. How it brings out any latent leadership. What a fine thing it is to be able to lead. So it is with the mentally deficient child when he comes to an institution. He begins to develop because he may now often lead rather than always follow.

The Special Class teacher who takes the trouble to visit the homes of the pupils, gets a new light upon her children that goes far toward a helpful understanding between her and the parent. We often say "The teachers certainly do need encouragement" but it is as often true that "The mothers certainly do need encouragement."

The contrast of the value of the trained feeble-minded person as against the menace of the untrained is worth noting. Twenty of Dr. Berstein's trained feeble-minded boys recently reforested 150 acres of burned land in the Adirondacks. The harm these twenty boys would probably have done if left untrained and at large is incalculable.

With the increasing study of the defective classes there has arisen a conviction that there are many on the borderland of mental defectiveness who are possibly a greater menace to society than the actual defectives. These too suffer more keenly at the hands of well meaning persons who do not understand them and so expect more poise and judgment than they are capable of showing.

The Special Class in the public schools is an important part of any plan to give comprehensive care to the feeble-minded in a State. Here the case should be studied—family history and environment should be known and recorded. Tests should be made and a careful record of accomplishments should be kept. All of the children who are in the Special Classes may be maintained (fed, housed and clothed) at home, thus saving the commonwealth a couple of hundred dollars a year. Every parent or teacher who is loath to believe that this "sweet little fellow" is defective when he is seven years old, will have no doubt of his condition when he is fifteen if he has been carefully observed and studied.

The interesting stories which "Boys' Life" is publishing about the dictionary should whet the appetite of any boy for greater knowledge of the wonders of the book of our language. The magazine indeed represents it to its boys as a "story book"—and makes out a good case for that designation.

It is by presenting such incentives, with the "work" of studying so attractively disguised, that the Scouts' magazine is making itself definitely serviceable to the cause of education.

Teachers may be able to use this contest to quicken the interest of some of their classes. If so, the Boys Scouts' magazine will be very glad to cooperate with them. The address is 200 Fifth Avenue, New York.

What is the Binet-Simon Measuring Scale for Intelligence? What can you do with it? How does it work? Is it all nonsense? Is it criticized by those who understand it? Can it be misused? These and many other questions are answered in a pamphlet just written by Miss Elizabeth S. Kite. There is no doubt that she can speak with greater authority on the interpretation and use of the Scale than anyone else in this country. We shall be glad to send a copy of this pamphlet upon request.

One of the great hindrances in the public mind to the acceptance of the Scale is the habit, almost universal among laymen, of considering the tests and judging of their value apart from their arrangement in the scale of years. Nothing is more common, apropos of the Scale, than the joking remark, now really too trite, "Why, I don't believe I could pass the tests myself!" Let no one, however, take such remarks too seriously. Except for possible failure in the twelve-year memory test, no reasonably intelligent adult could possibly fail in an honest attempt to pass the test. To give a question here and there just for amusement, as one would give a puzzle, is in no way comparable to a serious use of the Scale. Moreover, it must be understood that for a psychological examination to possess real scientific value it must take place under conditions which insure absence of self-consciousness on the part of the one examined. With children and mental defectives this is easily attained. To attempt to use the Scale seriously on a normal adult is never advisable except under exceptional circumstances, when every probable cause of error has been carefully guarded against. The desire to appear well, which is a distinct trait of normal humanity, makes the subject self-conscious, and fear of saying the wrong thing may keep him either stupidly mute or hurry him into an absurdity for which he blushes the next moment. This is not failing to pass the test, however, for self-consciousness is in itself a normal trait. It is when an absurd answer is accompanied with self-satisfaction that defect is made manifest.

Report of the Special Classes—Norwood Public Schools

Alice V. Burdge, Cincinnati

In the fall of 1912 the problem of the dull and backward child was recognized as being one that must be met, and a special class was organized, and that the work was successful was shown by the placing of an additional teacher in the work in the fall of 1914, thereby enabling fifteen more children to have the benefit of the work, making a total of thirty. The work has been helped greatly by this, as it has been possible to group the children to much better advantage, and to give each group more time and attention.

The selection of the children for the class is often a difficult one, not because it is hard to determine which child needs the work, but which needs it the most, and in two cases otherwise equal the one is chosen who is giving the most trouble and whose selection will afford the greatest relief to the regular class. The basis for the selection of the children has been the Binet Measuring Scale, which now has an established reputation among the leading psychologists of the world, but this has by no means been used as conclusive evidence without other investigation.

It has been our belief, with Professor Johnstone, of Vineland, that happiness is first, for only a happy child can do his best. It is an essential condition, as then all physical forces are at their best. An unhappy child has his mind only half upon his work, and the unhappiness, whatever may be the cause, reacts upon his nervous condition, so that he is unable to use his best ability. This does not mean that the child is humored and spoiled by being allowed to do whatever he wishes, for that would not be true happiness, but guided and encouraged to do what is right, and taught to feel that it is only weakness that yields to wrong doing, and to feel pride in having enough strength to resist. We feel that if the child can get this habit of happiness and also the feeling that crime is weakness and lack of strength to resist temptation, it will help keep him from crime in later years. As Wm. H. Whittaker, of Washington, D. C., who has done so much for prison reform, says, "Every one has pride, although he may lack honor;" and if by appealing to that pride, or self-respect, which often is lying dormant, you can arouse the boy, you start him upon the right track, although with these subnormals it takes greater watchfulness to keep them in line and to help them overcome their bad habits.

We work for the encouragement of the child, to give self-confidence, which is half the battle in accomplishing anything. One succeeds by per-

suading these children that they are capable of doing better. We often do not realize what a changed attitude the children have obtained until a new child enters the class, and the contrast is one of the greatest encouragements we have. Subnormals are much more susceptible to kind words and encouragement than to punishment (probably due to the fact that the majority have had much more unjust punishment than kindness shown them), but they must know that behind the kindness is an authority that will not allow them to infringe upon the rights of others by disorder that interferes with the work. We have one child in the class, the only son of a widow, and one of our most pitiable cases, who is afflicted with spinal trouble, caused by an accident at birth, and which seems to admit of no alleviation, and whose mental condition grows worse with his back, with whom it is necessary to deal very firmly and repress continually, or he would constantly utter the peculiar cries of that class of subnormals. The work is a continual conflict against unjust nature, as these children in most cases are the innocent victims of heredity, often accentuated by environment, and it is necessary to bear in mind that, however small may seem to be the result accomplished, it is more than due them as a work of justice and reparation.

Our children are justly proud of their handwork, and we hope this year to have our annual exhibit in the Norwood Public Library, where it may be seen by more people than is possible in the Marion Street School, where it was placed before. This will give a better idea of the character of the work, and also correct a rather erroneous conception of the class, which seems to be prevalent in some parts of Norwood where there has been no contact with the work itself.

There are six children in the class (and most of the children have been in the class since it was started) who have been worked up until we believe they could hold their own in a retarded class, and it is our earnest hope that not only another teacher may be placed in the special work, but that also retarded classes may be originated for fifth and sixth grades, where these children may be placed. Also others who are too young to leave school and are incapable of doing the work of normal children, and are not only being robbed of their self-respect, and are a constant trial in the regular classes, but who are also losing time in which they could be taught many things that would help them after they leave school.

We would like to be able to reach more of the younger children, when evidence of failure is first noticed, rather than after the child has drifted along from grade to grade until all energy has become misdirected, or all courage lost through constant contact with failure.

It is impossible to take up all the children in this report, but a few individuals will be spoken of:

No. 1. Raymond—physically ten, mentally seven—small, anemic, eyes crossed, could not write his own name legibly, knew very few words—now reading fairly in the primer and improving in number work. Have urged his parents to get glasses for him, but as his mother is very much averse to the child wearing them, we have not yet succeeded in getting them. This is one of the cases where a visiting nurse might help. Raymond's mother told us that this is the first time he has made any advance in school.

No. 2. Carl—physically eight, mentally less than seven—did not know his letters, could only count to ten, had been put in the second grade so that he could have a chance to get in the special class (as due to the waiting list, children in the first grade have not been taken). He had been in the kindergarten and first grade, but was so slow that he could get nothing with normal children. It was months before he seemed to get started, but finally he found the key, and since then has been doing very well. Carl is very attractive and lovable, and we believe that he will improve until he will be able to make a fair living as a man. He is very similar to his older brother, who is one of the boys ready for the retarded class, and he has an advantage over his brother, as he has not so many bad habits to overcome, having entered the class so much younger.

No. 3. Ralph—physically 10.6, mentally 8—a child who is rather more of the insane nervous type than is often met with; bad heredity, an older brother who has been in the insane asylum; taken from the second upper, where he was giving a good deal of trouble. One of a family of six, and, from what we can find out, meets with discouraging remarks at home. Ralph is trying hard now, and doing fairly well, gaining both in reading and number work.

No. 4. Lucille—physically 11, mentally 6—is an institution case, a child that would be noticed anywhere as a defective, with very poor muscular control, peculiar speech, and, although she has been in school five years, could scarcely write numbers to ten, knew very few words and was a very great drag to the regular class. She now can count to a hundred, and has finished one primer, and is reviewing in another; is always happy and smiling.

No. 5. Clifford—physically 12.5, mentally 8.4—so discouraged when he entered the class that he would not try anything, "simply slouched along" in manners as well as work. He soon became happy, and while something often happens to put him back in the old state, his whole attitude toward life is changing, as is indicated in face, manner and work.

No. 6. Russell—physically almost 12, mentally 8.4—the youngest of a family of eight, a queer and interesting disposition, came to Norwood Schools from the special class in the Cincinnati Schools. His mother wished him to have a trial in the regular class, where he was a complete failure, and he was put in our class in February. We wondered why he

cringed or jumped when we came near him, until we found out that his mother had been in the habit of whipping him every day with a rawhide. This we are glad to say she has stopped. Russell is always in a good humor and smiling, and full of pranks, and, although he gave a good deal of trouble at first, now he is steadily improving in conduct and work.

No. 7. Earl—*Said* to have had spinal meningitis when small, physically 10.5, mentally 8—articulation very poor, tonsils bad, eyes very nearsighted, large and well grown, taken from the third grade, although able to do only primer work, having been transferred from grade to grade on account of size. He is improving along all lines, and when he gets the glasses which his parents have promised, we feel that he will gain rapidly. His last mental testing showed a gain of a year, and we rather agree with Earl when he says, "I am learning fast now." We feel that while Earl will never test very high, yet he is capable of doing much more than we thought at first.

No. 8. Perry—physically 12.4, mentally 10—has a very bad case of adenoids and tonsils, but we have so far been unable to get his parents to have them removed, although they have promised to do so. This child is not defective, but retarded due to this. Was put in the class because he was so troublesome in the regular class that they wished to get him out of the school, and he was doing no good where he was. This was also a truancy case, and for awhile nothing seemed to have much effect upon his conduct, but for the past two months he has really tried, and we have only once had to send the truant officer after him. This is a case where it seems a pity not to be able to force the parents to have the child attended to. There have been no complaints from the outside of Perry for some time, and he is doing good work.

No. 9. Walter—physically almost 18, mentally 10—has been in the class for three years—is gaining very little and should be outside in some position as errand boy, which perhaps he could hold, although he has so little power of concentration that it is doubtful. He is really an institution case. His mother feels that he must go to school and will not realize his mental condition. This is a case which it would be very hard to have in the regular class.

No. 10. Clifford—physically nearly 11, mentally 8. We finally, after two years' effort, succeeded in having this child operated upon. The doctors at first diagnosed the case as adenoids, but it turned out to be much more serious, a diseased nasal bone, which was removed and a silver plate substituted. The boy is now beginning to get over the effects of the operation, which was very severe, and has a chance to outgrow the disease, although the doctors say had there been no operation his death would have followed in less than two years. Whether the boy is only retarded

from his physical condition, or is subnormal, only time will determine. His work varies with his health, as is to be expected.

HANDWORK—1914-15.

Woodwork.

Eskimo sleds and dogs	4
Bird houses	11
Kite winders	4
Nail box	1
Calendars	18
Tie racks	9
Foot stools	4
Book racks	8
Money banks	5
Key racks	8
Hat and coat racks	4
Whisk broom holders	5
Picture frames	5
Toy tables	2
Toy wheelbarrows	3
Comb and brush holders	7
Coat hangers	1
Log cabin, furniture mats, etc,	
Pilgrim dolls	

Raffia Work.

Baskets	31
Picture frames	29
Mats	4
Wrapped baskets	14
Pin balls	6
Napkin holders	16
Twine holders	3
Letter holder	1

Miscellaneous.

Relief maps of N. A.	4
Reed baskets	15
Toy hammocks	6
Dresser scarfs	2
Pillow tops	11
Sewing aprons	3
Needle books	6
Doll sack and cap	1
Doll capes and caps	2
Pin cases	5
Doll middy suits	2
Doll muffs and boas	3
Hallowe'en lanterns	8
Sewing cards, bean bags	
Boats (whittling)	

Cardboard Work.

Boxes
Chairs
Envelopes
Spool baskets
Calendars
Log cabins
Santa Clauses
Chains

Special Class Physical Training

Molly Kaufman, Newark, N. J.

Can you imagine a school situated on the outskirts of a crowded city; a school situated almost in the green wood? Can you imagine teaching in a light airy room filled with sunshine and happy, well-dressed, carefree children who bring bunches of flowers with which they brighten up an already beautiful classroom?

Contrast this with a small, tin-roofed building situated between a garage and an old shanty, and back of which is a storehouse faced and roofed with tin. When the sun shines on this building the classrooms, which are about eighteen feet away, bake and broil. The only playground available is the narrow cemented yard between the storehouse and the school, or two indoor, low courts with whitewashed walls, or the streets. There are no happy, well-dressed, carefree children here. There is no spontaneous free play of youth. All are dull. They do not react to the stimuli affecting normal children. In their eyes there is no spark of intelligent youth; in their presence one feels a weight of depression, a tug at one's heart. These children are the tragedies of our civilization. They are the burdens which must be carried along and patiently endured until we can educate the nation to prevent such occurrences.

If you can see this sharp contrast you may well imagine how I felt, when, at my request, I was transferred from the teaching of normal children of the fifth grade to that of the defective.

It was a fight at the outset against depression. It was a struggle to reconcile the æsthetic with the drab monotony of their existence. I had to stifle my thoughts of the future of these children. What does life hold out for them? What do they do when they, the adult children, pass from under our training and supervision?

Though at the outset I had to fight hard to subordinate my concepts of grade teaching to those of teaching of defectives, yet I was agreeably surprised at the excellent possibilities of work I found when certain well-conceived and ordered stimuli were applied to the children.

Let me outline briefly the organization of the school. There are eight classes—five organized on the departmental plan, two kindergarten groups and a boys' trade class. The departmental division consists of a class of boys of about twelve years old, but mentally six; another about fourteen with the mentality of seven, and a third about fifteen with the mentality of eight; a class of girls ranging between eleven and fifteen, but mentally

about six, and one ranging between thirteen and sixteen, but mentally about seven. Although the mental age of the boys of the trade class does not exceed that of the others, through long consistent training they are able to excel in their work. The phases of work given to the departmental division are: formal, kitchen, industrial, shop, music and physical training. As these last two are my special work I will devote my paper to these phases.

The plans for my first two weeks were very simple. I selected exercises from the physical training syllabus prescribed for the elementary school and applied them to each group, according to what, in my opinion, they would be able to do. You see, I was groping around and had to feel my way to learn from the children what they really could do. I was agreeably surprised when I found I had gone too far back in the syllabus and I would have to plan more complex work.

I will begin with the lowest class and discuss my daily plan in the gymnasium. As the singing forms the minor part of my work, I will dispose of that very quickly. About ten minutes of each period is devoted to that phase. Each class is taught the same songs, so that a morning assembly is possible. Not only the simple little melodies, but such songs as Brahm's "Lullaby," Nivin's "Mighty Like a Rose" and "Finiculi" are sung. With the older girls I have started a little of two-part work to help maintain the interest.

In the physical training the work varies according to the grade. The lowest class of boys, whose mentality is about six, does free-hand exercises, which, when combined, make a splendid exhibition mass drill. They can execute this and a dumbell drill without a leader. On the heavy apparatus simple exercises, such as jumping on a horse, landing on the knees, and then jumping off forward, swinging and landing on the side of the parallel bars, swinging on the rings, are performed. These boys like dancing, and in contrast to the grade school, the boys of fourth grade looked upon dancing as disgraceful for boys; here they keep asking for it. I have taught them a sailor's hornpipe, much like the one I taught to the lower girls' class, and they dance it well. There seems to be a great deal of competition here as to which class can do more steps. Occasionally I will hear a little fellow say to one of the girls, "We know six steps without stopping, how many do you know? Miss K—— said we can dance as good as you."

The next higher group of boys are mentally about seven years. Military tactics, such as filing, wheeling, flanking and to the rear marching, forms a great part of their floor work. Floor work consists of the exercises used in the sixth grade of the grammar school. These boys like wand exercises and execute a very interesting wand drill. The apparatus exercises are more complex and include vaulting over the horse, swinging over

the side of the parallel bars and making a bird's nest on the rings. They are beginning to acquire a team spirit and play volley ball very skillfully.

The highest grade boys average mentally about eight years. Several minutes are spent on military tactics, which stir them up to quick action and response, and at the same time help them to acquire a good erect carriage. The floor work is taken from the seventh-grade syllabus. This year Indian clubs were added to the gymnasium equipment, yet the boys have learned to swing them, in mass, with as much rhythm and skill as any sixth or seventh grade of normal boys. I will repeat, these boys are mentally eight. The heavy apparatus, such as rings, bucks, horses and parallel bars, are a source of much pleasure to the boys. The spirit of competition here is extremely keen. They actually count how many successfully perform an exercise. Occasionally a boy will ask if he may demonstrate some exercise he has learned from some other boy. Following him up immediately each of the boys will endeavor to do the same thing. They will use free time in trying to work up on it. After practicing on the horse a long time one boy made the following remarks: "It ain't so easy as it looks. You know every time I try to jump over I nearly do it, only my feet get in my way. Maybe if I keep on trying I'll be able to do it next week. Anyhow it's better to nearly do it *then* not to do it at all."

With the girls I use most of the period for rhythmic work and dancing; however, the floor work and games are not neglected. In the lower class response work is used as a means to accomplish the rhythmic, and also for correction. For a little exhibition we had I prepared a flower and hoop drill of six figures, which the girls, who, we must remember, average mentally between five and six, performed without a leader. They are very fond of folk dances and little two-step or polka combinations. The usual question as they come into the gymnasium is, "Are we going to dance today?" They enjoy the singing games, but prefer the active games such as the "cat and the mouse" or "hill dill."

The older girls are mentally between seven and eight. Their floor work consists of the prescribed syllabus for the sixth grade. With tactics and light apparatus I had the same agreeable surprise as with the boys. They far excelled any conception I had of their possibilities. Dancing (æsthetic, social and folk) forms the major portion of their work. In preparation for æsthetic dancing I arranged a series of exercises such as might be used in the highest grammar grades. The girls have learned to execute them with as much poise and co-ordination as any grammar grade group. Among the dances they have learned are: a Japanese dance which is being used in the junior class at Normal School, a fairy dance with a variety of steps, an æsthetic waltz combination, the tarantella and a dance of industries. The latter represents butter churning, mowing and gather-

ing the hay, spinning and weaving the flax. I have also taught them the proper way to do some of the modern dances.

I have thus given you a short survey of my work in physical training with defective children. I have tried to show you what great possibilities there are and how it may be used as a leverage for making the dull lives of these children more pleasant and wholesome. I cannot in this brief survey tell all the needs of the defective, but I do hope that the educational authorities will realize that these children need the best of schools, teachers and equipment.

Special Class Work in Kansas City

Hilda Benn

The first step toward organized special class work for the retarded and defective children in the public schools of Kansas City was taken in September, 1915, when special classes for both boys and girls were opened in the Madison School.

This school is used as a center and the children come from all parts of the city and remain thruout the day, thirty minutes being allowed for their luncheon period.

The growth of the department has been so rapid that in order to satisfactorily grade the work the children have been divided into groups of about fifteen each.

One large room in the building is well equipped as a work shop and there the children spend several periods each day doing various kinds of manual work. Another room is supplied with a piano and movable tables and chairs and in this room our classes gather for their music, calisthenics, folk dances and general good times. The other rooms are used for the regular academic work.

The interest of the Superintendent and Board of Education is made most apparent by the prompt manner in which equipment and material have been supplied for this special department.

Dramatization as an Aid in the Teaching of English

Gertrude M. Fairbanks

In many of the schools of today dramatization as an aid to the teaching of reading and language has come to have a prominent place.

To read well one must have an intelligent understanding of what he is reading about.

To act out a story, to play at being the characters in the story, is to make it real.

The child enters into the feelings and experiences of a character by being that character. He learns to understand the relations with other characters as he could not possibly do by a mere reading or by hearing the story told. He lives the story. When he comes to the reading, it has real meaning for him and expression comes naturally and without effort. He has gained not only words, but ideas.

In the development of a story the teacher first tells the story once or twice, then several children may tell it together, and finally individual children may tell it. Then comes the acting, for which the children should be encouraged to make suggestions and to express the ideas in their own words, as far as possible, for it is desirable to have the acting spontaneous and natural.

After the dramatization and the children have become thoroughly familiar with the story, they are ready for the reading.

The children taking the speaking parts must of course be required to speak grammatically and distinctly. Continual practice in the use of correct forms is a help in overcoming carelessness or slovenliness of speech characteristic of so many children, especially the mentally defective, hence is of value in language teaching and speech training.

Dramatization has many advantages aside from its direct bearing on reading and language. While leading to these definite ends, it is directing and using the natural activity of the child and encouraging his instinct for play, affording exercise for both mind and body. It develops his imagination, memory and powers of observation.

It is a help in overcoming self-consciousness and the giving of self-confidence on the part of the timid, diffident child, while the over-forward, smart child may learn a lesson by being quietly ignored until he is willing to co-operate and to take part in the right spirit.

There are many opportunities for the bringing home of ethical truths, and these can be made much more effective in this way than by the ordinary teaching.

Dramatizing tends to make life broader because the child puts himself in another's place.

While dramatization has a very definite value for normal children, the same methods can be modified and adapted so as to be very useful in the work with the mentally defective.

The results will necessarily be somewhat different, owing to the limitations of these children. Some may be able to take a small part in acting a story, who will never learn to read or write one, but it is nevertheless good training.

A child who may be only a cow or a sheep in the story is contributing his little part and gaining something from participation.

With the higher-grade children it would seem that practice in dramatizing should be a preparation for taking speaking parts in real plays, thus being an aid to the entertainment work which is considered of so much value for our children.

Current Literature on Feeble-Mindedness

Flora E. Otis, Librarian

Research Department, Vineland.

Beginning with this issue of the BULLETIN we plan to print from time to time the more important titles in this field. The plan contemplates a monthly bibliography of new literature. It may not always be possible to list all references, in which case preference will be given to the most significant articles and to those appearing in publications less likely to be seen by those readers who do not have access to a library that specializes on this subject. The titles will refer primarily to feeble-mindedness and its bearing on social problems.

Mr. L. W. Crafts, of the Research Department, has just completed an exhaustive bibliography which will be published in the near future. These monthly bibliographies will continue that work. For other titles the reader is referred to "Bibliography of Mental Deficiency" by H. H. Goddard, Training School, Vol. 6, No. 3, May, 1909; "A Working Bibliography on Feeble-Mindedness and Related Subjects," by E. A. Doll, Training School Bulletin, Vol. 10, No. 3, May, 1913; and "A Bibiliography of Eugenics and Related Subjects," by Gertrude E. Hall, Director, Bureau of Analysis and Investigation, New York State Board of Charities, Albany, 1913.

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Sylvia

Eliza A. Randolph

When Sylvia and her sister became homeless because of the inability and disinclination of their immoral parents to care for them, the sister, the older of the two, was taken "to raise" by a well-meaning woman and Sylvia was brought to the Training School. She was then about eight years of age, with a mentality of a normal six-year-old child. She had attended public school for a few days only and just previous to her coming to us.

Immediately upon entrance Sylvia started to attend school. She was delighted to go to kindergarten, and soon learned to play all the games, to sew, weave, color, etc. She developed quite a sweet singing voice, and soon took a leading part in the circle. She enjoyed being a little helper, and often helped to give out the work and such little tasks.

One day in kindergarten Sylvia asked if they would sing their prayer? One of the little girls said, "No, I don't want to sing my prayer;" to which Sylvia replied, "God won't like us if we don't sing our prayer, will he Miss K——?"

In two years she was able to go on from the kindergarten work to our grade first division.

She became quite a little star in our entertainments. In one of her first Christmas plays she took the part of "Dew," and when she began practicing for her part she would think it strange that we played the same game over and over so many times, and often asked to play a new game. In a short time, however, she learned the difference between playing and practicing and was most anxious to do her part well.

She likes all the games, dancing and marching, and shows her higher mental ability over many other children in her classes by wanting to do something different all the time. She has taken leading parts in many of our entertainments and always does credit to her teachers.

In her English work she is almost hopeless, though improving a very little. She tries to copy writing, but it is not readable. She can count to twenty-five and can write the figures to twenty. She takes a great interest in the story-telling period.

In phonics she is doing fair work in the building of the families. She is able to read fairly well in the First Reader.

She is a very interesting little girl to take with a class on our nature walks; she asks so many intelligent questions about the object of the lesson and the things to be seen along the way.

The second year in the class she made three small aprons—a gingham and two white ones. One of the little white ones had lace on the edge and the other was decorated with a design of daisies and leaves embroidered in the shadow stitch in one corner.

Her next step was to make a middy blouse for herself. She made the waist of white linen with red collars and cuffs. She trimmed these with white braid. While making this waist she learned to use the foot-power sewing machine and could stitch without being watched.

During the past year she has made a plain white linen middy suit for her sister, saying she would not put red collars and cuffs on this middy, as it would launder better, being all white.

She has embroidered a doily of shamrock design in chain stitch and button-holed the edge, also is embroidering a white apron with clover design in lazy daisy, French knots and outlining stitches.

In the domestic science class she can set the table, make a beautiful bed and can iron simple articles—aprons, towels, etc. She is learning to cook, and has made the following: cream potato soup, cocoa, boiled potatoes, mashed potatoes, muffins, sponge cake and fudge.

In the arts class she has made two coat-hangers, six sachets, safety-pin holders, one pair of eiderdown slippers and a colonial mat.

In her cottage she washes and dresses herself and helps to dress two other little girls, who are less capable than herself. She is capable of substituting as a little waitress in the family dining-room.

Under the influence and training which we have been able to give to Sylvia she has now grown to be a very useful and competent little girl; and in the future, under direction and protection, she gives promise of becoming one of our most capable, partly self-supporting girls.

Had she been left in the world, uncared for and untrained, we cannot help but believe that she would have followed in the footsteps of her wretched parents. Today she would be a menace to the world; instead she is a beautiful, lovable, well-trained child.

Sylvia in her third year with us was placed in the band. She was given lessons on the cornet. She proved to be quick at learning to blow the instrument and can play "Home, Sweet Home" fairly well. One day she gave one of the older girls a scolding for being slow, and said, "Mr. K——, I would not learn clarinet like Marjorie; there are too many keys to bother about. Cornet's what I like."

After she progressed from kindergarten to first-grade work she entered one of the needlework classes. The first year she was in the class she dressed a doll and was delighted to think she was learning to use thimble, scissors and needle and thread. She is very fond of her dolls and will play with them by the hour in her cottage.

Review

C. S. Rossy. *Report on the First Three Hundred Cases Examined at the Massachusetts State Prison.* Bulletin No. 17 of the Massachusetts State Board of Insanity, January, 1916.

Three hundred criminals of the Massachusetts State Prison were examined in alphabetical order. Mental age was determined by the revised Yerkes-Bridges Point Scale. The range in age of the criminals was from sixteen to eighty-six years. A table is given showing offense, mental age and diagnosis for each person examined. Of the three hundred examined, 22 per cent. (66 cases) are found feeble-minded, 9.6 per cent. borderline, 3.3 per cent. presumably psychotic and the remaining 65 per cent. "not diagnosed." "The 22 per cent. feeble-minded subjects are custodial cases insofar as their deficient mentality and significant history indicate the need of supervision." Seven illustrative cases are given showing especially school grade, personal history and previous criminal record.

The analysis of the offenses of these feeble-minded criminals is a convincing demonstration of the menace of defectives left at large in the community, and an eloquent plea for their early detection and segregation. Twenty-four of the 66 cases were convicted for sex offenses, of which 7 were assault with intent to rape, 5 were carnal abuse of female child, and 4 were rape. Twenty-two of the 66 were convicted for crimes against property, of which 8 were breaking and entering, 8 were robbery, and 4 were larceny. *Twenty of the 66 feeble-minded cases were convicted for crimes against life, of which 11 were murder in the second degree, 5 were manslaughter and 4 were assault with intent to murder.*

Such studies as this plead with an insistent voice for the establishment of clinics for the early detection of all feeble-minded. They also show the need for educational propaganda looking toward the ultimate supervision or segregation of such persons. With our present knowledge and methods of examination most mental defectives could be discovered during their school age, or certainly on their first convictions under the law. All of the seven illustrative cases cited in this study were feeble-minded, except that in two there was a question of psychosis. Four of them had previous commitment records, one of whom had previously been committed twice for assault to kill, twice for assault, once for burglary, once for drunkenness, once for disorderly conduct, and once for immorality. The school history of these cases is also illuminating, and shows a close correspondence between school success and mental age.

E. A. Doll.

Progress in the States

(From Bulletin of National Conference of Charities and Corrections.)

ARKANSAS. Commission of five appointed to study needs of feeble-minded and report January, 1917.

CALIFORNIA. $25,000 appropriated for girls' nursery and $12,500 for two barracks for male epileptics at Sonoma State Home. Educational director for institution authorized. Parents and peace officers may petition to have mental defectives committed to Sonoma State Home, county to bear expenses of commitment in indigent cases. Whittier State Reform School to maintain department for feeble-minded and may select group of inmates for research.

CONNECTICUT. Name of Connecticut School for Imbeciles changed to Connecticut Training School for the Feeble-Minded. Trustees authorized to sell present buildings and site and $200,000 appropriated for new buildings to be located at Connecticut Colony for Epileptics at Mansfield Depot.

DELAWARE. $1,200 appropriated for maintenance of deaf, dumb, blind and idiotic children in institutions in other States.

FLORIDA. Commission of five appointed to study needs and best methods of caring for feeble-minded and epileptic.

IDAHO. 1915 Legislature failed to make appropriation to complete State sanitarium for feeble-minded and epileptics authorized and partly provided for in 1913. Buildings in State of partial completion.

ILLINOIS. Any reputable citizen may petition court for commitment of feeble-minded person; pending hearing court may order detention of alleged feeble-minded person, but he shall not "be detained in any place provided for the detention of persons charged with or convicted of any criminal or quasi criminal offense"; before court and commission of two qualified physicians or one qualified psychologist; no feeble-minded female shall be taken to an institution by male person not her husband, father, brother or son, without attendance of some woman of good character and mature age; no person shall be discharged from public institution for feeble-minded without suitable clothing and sum of money not exceeding $20, sufficient to defray expenses home, although court may dispense with this requirement.

INDIANA. Commission appointed to study needs and best method of providing for mentally defective in the State.

IOWA. Board of Control authorized to transfer epileptics to State Colony for Epileptics at Woodward.

MASSACHUSETTS. $50,000 appopriated for purchase of site and preparation of plans for new institution for the feeble-minded in Western part of State, to be under control of State Board of Insanity.

MICHIGAN. Michigan Farm Colony for Epileptics, a new institution at Wahjamega, authorized to receive patients. $200,000 appropriated for new buildings and site.

MISSOURI. $92,000 appropriated for enlargement of Missouri Colony for Feeble-Minded and Epileptics at Marshall.

NEBRASKA. Commitment of feeble-minded at Nebraska Institution for Feeble-Minded Youth at Beatrice by transfer from other State institutions authorized to commit.

NEW HAMPSHIRE. Appropriation $45,000 for new buildings at State School for Feeble-Minded Children at Laconia.

NEW JERSEY. Commission on the Mentally Defective revived and instructed to prepare a report for the next Legislature upon "the proper administration of the charities and corrections of the State" and how to "organize the present system of public care of dependents, defectives and delinquents."

NEW YORK. A magistrate may commit feeble-minded child to public institution for feeble-minded upon certificate of two qualified examining physicians. Retention law makes same procedure possible in cases already in institutions whose parents endeavor to remove them. $600,000 appropriated by Board of Estimates of New York City for reorganization of Hospital and School at Randall's Island, in accordance with recommendations made by a special committee appointed by the Commissioner of Public Charities.

PENNSYLVANIA. $40,000 appropriated in addition to the $25,000 building under construction for the new Village for Feeble-Minded Women at Glen Iron, Union County.

TEXAS. $50,000 appropriated and commission appointed to purchase site and establish colony for feeble-minded at Austin; preference in admissions for women of the child-bearing age.

UTAH. Commission of three created to investigate public provision for the care, custody and treatment of the mentally defective and to report next session of Legislature.

VERMONT. $65,000 appropriated for establishment of Vermont School for Feeble-Minded Children, at Brandon.

WASHINGTON. $506,000 appropriated for purchase of additional land and equipment for State Institution for Feeble-Minded at Medical Lake.

The Training School Summer School

The twelfth session of the Summer School for teachers of backward or feeble-minded children will be held at the Training School, Vineland, N. J. from July 10th to August 13th inclusive. The students will live in the institution and every opportunity will be given them to observe our children at school, at work and at play. In the past, psychologists, school superintendents and principals have felt that the course is well worth while. The fee is $75.00 for the six weeks and includes tuition, board and lodging but does not include laundering. The Announcements will be sent upon request.

E. R. JOHNSTONE, Vineland, N. J.

New York University Summer School

Opens July 10, closes August 25, 1916

Elementary and advanced Courses for Teachers of Defective Children and for Supervisors of Special Classes.

Prof. Lewis M. Terman of Leland Stanford University, Cal. and others will give courses.

Courses on Intelligence Testing.

A Practice School of 100 children with six classes under the direction of Miss Meta L. Anderson offers unusual opportunities to observe the latest methods of dealing with subnormal pupils.

For circular, address

PROF. JAMES E. LOUGH, Acting Dean

Washington Square, New York City.

ANTHROPOMETRY AS AN AID TO MENTAL DIAGNOSIS. A simple method for examination of subnormals. By Edgar A. Doll, Assistant Psychologist. About 75 pages, paper cover, 50 cents. Published by The Training School at Vineland, New Jersey, Department of Research.

This book shows a new and simple method of making a preliminary diagnosis of feeble-mindedness by means of six anthropometric measurements. It is based on a statistical study of normal and defective children.

The Index of the Training School Bulletin for Volume XII is now ready and will be sent upon request.

A Contribution to the Standardization of the De Sanctis Tests

A. Leila Martin

Assistant in Psychology at the Vineland Laboratory

A graded series of six tests was proposed by Professor Sante De Sanctis, of the University of Rome, in an article, "Types and Degrees of Mental Deficiency," which appeared in Italian in Annali di Nevrologia, Naples, 1906, and in French in L'Année Psychologique, No. 12, of the same year. A translation of these tests was published in the Training School Bulletin two years later.

At the end of an article, "Mental Development and Measurement of Intelligence," which appeared in the Journal of Educational Psychology November, 1911, Professor De Sanctis explains: "At the present time in certain American, Russian and Italian institutions, my series of tests of 1905 are in general use. These tests, however, are not designed primarily to measure the level of intelligence. Rather I intended them to measure the degree of mental defect. (This was after stating that it was yet to be proven 'that the laws of intellectual regression and involution are the same as those of progression and evolution.')

"By the application of my tests in an institution for idiots or in a special school for abnormal children one can easily and with a high degree of certainty obtain a division of all of the inmates into three groups, mental defectives of the third, second and first grades. Thus, those who are called idiots and imbeciles, defectives of the third and second grades, are quickly distinguished from those who are to-day called 'morons,' defectives of the first grade. This is important from the medico-pedagogical standpoint, since the morons should be sent to special schools, or as day pupils to asylum schools, while the idiots and imbeciles should be entrusted to institutions."

Prof. De Sanctis claims that by these tests one discovers directly:

First—Capacity of adaptation to experience, which comprises adaptation to work, and certain conditions of attention, of perception and of will.

Second—Immediate memory of colors.

Third—Capacity for recognizing colors and forms, and the recognition in a way to establish the identity of a plane figure with a solid.

Fourth—The tenacity or duration of attention.

Fifth—The capacity of enumerating objects and of judging of their quantity, size and distance.

Sixth—The capacity to reason about objects no longer present to the senses, and on the general concepts which comprise not only attention and imagination, but also the faculty of generalization and abstraction.

Seventh—The rapidity of perceiving, of reflecting and of acting.

The progressive difficulty in these tests, according to their author, consists in starting from experiments on intellectual functions, which he calls inferior, and proceeding to the superior functions. This method seems to him more reasonable than that which consists of tests of increasing difficulty along the line of memory or of attention.

Between October, 1914, and April, 1915, the De Sanctis tests were given to 362 children—212 public school children from the first four grades of three Vineland schools (including a few three and four year old children, who were tested in their own homes), and to 150 inmates of the Training School.

It is the purpose of the present study to see how children, both normal and feeble-minded, react to these tests; to see whether those of the same level of intelligence make the same character of response.

In this report mental age as determined by the Binet scale is the basis of comparison. The mental ages of the children from the Training School were taken from the laboratory records. The public school children were given the Binet tests after being given the De Sanctis series. This precaution was taken because of the influence that the tests with the weighted cubes might have upon the subject's reaction to the De Sanctis questions, "Are large things heavier or lighter than small things?" and "How does it happen that sometimes small things are heavier than large things?" Chronological age is counted from the last birthday, mental age from the last full year of the final rating.

The De Sanctis series was always given by the same examiner. Twelve was the average number tested per day when both series of tests were given.

Two of the public schools were selected because they had few children of foreign parentage. From the third school, where a large proportion of the attendance is Italian, not many pupils were tested. Six were taken from the first grade, forty-five from the third and fourth grades. The age distribution can be seen from Table III.

The records of five children were not used in this study because by the Binet tests they are feeble-minded. They are appended here for the benefit of any readers who may wish to use the unselected group.

The testing in the public schools was conducted during school hours and in unused cloak rooms or halls adjoining the rooms from which the children were taken. Although the conditions were not ideal, the light was always good, and in all cases there was plenty of room. A disturbing element was the school hum, but the subjects did not seem to be distracted

by these ordinary school noises, and the examiner felt that they in no case affected the success or the failure of the individual tests, yet they may have influenced the rapidity of the individual responses. The attitude of the children was all that could be desired; each was interested and each wanted to try "the game."

The "children" from the Training School were an unselected group and ranged in age from 3 to 50 years. The age distribution was as follows:

5	were between	3	and	7	years of age
91	were between	7	and	16	years of age
31	were between	16	and	20	years of age
14	were between	20	and	30	years of age
6	were between	30	and	40	years of age
3	were between	40	and	50	years of age
Total.... 150					

All the children in the school department served as subjects, the tests being conducted in an unused room in the school building. The other feeble-minded children were tested in quiet rooms in the cottages in which they live.

The method followed is as outlined in Dr. Goddard's translation of the De Sanctis Tests (published in the Training School BULLETIN in 1908 and reprinted in the May edition, 1913) with four modifications, each of which appear in the author's description of the tests as published in 1906.

1. A pause of 40" was introduced between the first and second test.
2. The fourth test was separated into two parts.
3. In the third part of the sixth test the position of the words "larger" and "smaller" was interchanged.
4. In the fourth part of the sixth test the word "really" was inserted.

The material used was such as sold for this series of tests by C. H. Stoelting & Co., Chicago.

The subject was always seated at a table opposite the examiner. At the beginning of the test the material was on the table; those portions needed for the separate tests being by themselves and covered with pasteboard boxes (3) of convenient sizes. The material was exposed to view only while the test which required it was being performed. There was a rest interval after each test. The questions may be repeated three times.

TEST 1.

Material—Five wooden balls of different colors, red, green, blue, orange and yellow. These balls were 5cm. in diameter.

The examiner says to the subject, "Give me a ball."

The balls were presented in a row, but not in a definite arrangement as to color. There was no record kept of the cases in which the ball chosen was the one nearest the favored hand.

Of the public school children 26 per cent. gave the blue ball, 25 per cent. the red, 18 per cent. the green, 16 per cent. the orange, and 14 per cent. the yellow. Of the feeble-minded subjects, 34 per cent. gave the red ball, 24 per cent. the blue, 18 per cent. the yellow, 12 per cent. the green, and 11 per cent. the orange. The red and the blue led, one or the other being chosen in over 50 per cent. of the cases in each group.

All of the children of 3-year mentality succeeded in this test. In the feeble-minded group, 77 per cent. of those of mentality of 2 years succeeded; there was no corresponding group of normal children. See Tables I and II.

TEST 2.

Material—Same as Test 1.

There was an interval of 40" between the first and second tests during which time the balls were not exposed to view. The arrangement of the balls was changed before they were again presented.

The examiner asks, "Which is the ball you gave me?"

Eighty-eight per cent. of the normal children of a mental age of 4 years succeeded in passing the test; the 5-year group among the feeble-minded did nearly as well. In each group less than 30 per cent. of the children of 3-year mentality passed the test. See tables.

TEST 3.

Material—Ten wooden geometric forms of the same color. Five cubes (3.5cm.). Three four-sided pyramids (5cm. high). Two parallelopipeds (6x3x1.5cm.).

The five wooden cubes were well scattered among the other forms on the table. The examiner holds up a sixth cube of the same size and color (a cube from material for test five) and says to the subject, "Do you see this?" "Show me all that are like it in that group."

Only 2 of the 7 normal children of a mentality of 3 years passed this test; one of these required a second trial. Of the 8 normal children of a mental age of 4 years, only one failed the test; in all three trials this subject picked out the cubes first then picked out the other forms.

Although the numbers are small, the failures and successes were so decided, it seems that this test of ability to recognize form might be a good 4-year test.

Mental Age	Normal		Feeble-minded	
	Cases	% Passed	Cases	% Passed
4	8	89	13	77
3	7	29	6	33

Four of the 13 Training School children who have mental ages between 2 and 3 years succeeded in this test. It was interesting to see that these were all cases of children who go to kindergarten every day. Their chronological ages were 3.5, 9.9, 10.1 and 11.1, and their reaction times were 23", 17", 26" and 15" respectively. The character of the failures—no response, tried to put blocks in their mouths, gathered blocks together to play, picked them up at random, or picked out the cubes then all the others.

Of the 6 feeble-minded children with a mental age of 3 years, only two succeeded in the test, taking 25" and 20" for the response. But all of this group seemed to understand part of the request. Of the demand, "Show me all that are like this," they had seemingly gotten only the first part, "Show me all." Some selected the cubes first and then the other blocks, others picked up all the pieces at random one by one.

A few of the children of 8-year mentality and many of those beyond that age seemed to resent the test. This was particularly true of the feeble-minded children. They considered it too easy. As one girl, with a shrug expressed it, "Ah, this is kindergarten." Others of the older children seemed to suspect a trick in the test. They would study the blocks carefully to see if there might be a very slight difference in size or in shape—and would not pick out the blocks that showed wear until the test was re-explained. Before responding they would often look at the examiner as if wondering why such an easy request had been made of them, or would go at the task in a half-hearted way. A few hesitated as if on the point of refusal.

There is nothing in the demand to stimulate the subject to act quickly. If test 5 were given before test 3, the reaction time would be lowered in many cases—the time which is emphasized in that test often carries over to the following one. Except for individual cases and for the lower years, it would seem as if the time element were of little value.

TEST 4.

Material—A card of geometric forms, a small wooden pointer, and a black wooden cube with a face the size of the squares on the card. This card is about 32cm. square and has on it 10 rows of 14 figures each. The figures are triangles, rectangles and squares reproduced in solid black. There are 49 squares placed at random on the card. The figures are about a half inch at the base. The rectangle is one-half that height and the triangle is the altitude of the square. This card is illustrated in Professor Whipple's "Manual of Mental and Physical Tests."

Examiner: "Do you see this piece of wood? (holding the black cube before the subject). Point to a figure on this card that looks like it. (This is to prepare the subject for the second part of the test.) (After having

obtained the recognition.) Point to all the squares with this pencil. Go line by line, as fast as you can, and do not miss any."

This test was passed by over 80 per cent. of the normal children of 5-year mentality and 77 per cent. of the feeble-minded subjects of the same mental level, while in each group at the 4-year level less than 40 per cent. succeeded. This is a very good 5-year-old test. Credit was always given if the subject held the idea to the end of the test—none of those credited skipped more than three squares.

The reaction to the test requires for success perception of form "in a way to establish the identity of a plane figure with a solid," ability to follow directions, co-ordination of hand and eye muscles, and duration of attention. Some subjects showed foresight and so lessened their time reaction to the test by reversing the direction in which they pointed out the squares at the end of each line.

The average time that it took to do this test was worked out for the different mental levels. But these figures do not seem to be of value when so massed—the limits of variability show so much overlapping. For the time element to be considered at all, the tests would have to be given under decidedly laboratory conditions—each subject having been previously tested for eye defects, disturbing sounds eliminated, etc. Even then it is probable that to be of value the average time of several performances would have to be taken, since when this test was repeated with the same subject after intervals of several days, great individual variability in time reaction was shown.

Thruout the whole series the examiner felt that the time reactions to the different tests would be of value only when accompanied by the examiner's observation of each subject and of his whole reaction to the test, and then would be largely valuable in showing the type of individual rather than a degree of intelligence. Is he quick with good co-ordination or slow motioned with equally good co-ordination but over conscientious—fearful of making a mistake, etc.? Altho time records were kept, the data do not seem of enough value to publish.

TEST 5.

Material—A set of 12 wooden cubes of the same color (natural wood), gradually increasing in size from 1.5 to 8cm.

Examiner: Here are blocks of wood just like those you saw on the card.

(a) Look carefully and tell me how many there are.

When the child had responded to this, the examiner asked:

(b) Which one of them is the largest?

And last:

(c) Which one is farthest from you?

The twelve cubes were scattered on the table in no definite arrangement, except that the largest cube was in about the middle of the group on the left-hand side, another of the large cubes was in the same position on the right, and the cube farthest from the subject was the fourth largest and was decidedly the farthest from the subject and directly in front of him. Care must be taken that the smaller cubes are plainly in view from where the subject sits—not hidden by the larger blocks.

It was noticed early in the testing that the lower grade feeble-minded children tended to select the largest block, no matter what question was asked, or very often selected the large block near their favored hand. By placing the blocks as above and repeating the question with these younger children, such cases could be checked. The results for 5b and 5c would be quite different were these precautions not taken.

In a note explaining his tests Professor De Sanctis writes, "It should be understood that the experimenter may always substitute for the words suggested other words better adapted to the age and the degrees of instruction of the subject. This was the procedure of Professor M. Montessori, and more recently of A. Ieronutti (a pupil of De Sanctis).

After the subject had failed in the last two questions, having been given three trials, the form of the questions was changed to, "Which is the *biggest?*" and "Which is the farthest *away* from you?" "These changes were suggested after testing a few of the lower grade feeble-minded children. In responding some of them would say, "This is the biggest," or "This is the far away one," after hesitating over the original questions.

It is a question how much this is a test of ability to discriminate size and distance, as is claimed, since language is such a factor. To illustrate, after a 4-year-old child had decidedly failed when asked to show the biggest block, the mother, who was observing the test, said, "Why, you know. Which is the *great, great* big one?" The child pointed to the right block immediately. There was no doubt about his ability to discriminate size when the question was put that way.

The following table gives the number of children tested, classified by mental age, and the percentage of successes for the different parts of this test:

NORMAL CHILDREN

Mental age	No. tested	Enumerating cubes	Which is the largest?	Which is the biggest?*	Which is the farthest from you?	Which is the farthest away from you?*
		%	%	%	%	%
3	7	0	0	0	0	0
4	8	0	25	38	12	25
5	24	29	46	96	29	58
6	36	75	81	97	50	74
7	43	98	93	100	74	98
8	37	100	100	100	81	100
9	27	100	100	100	96	100
10	21	100	100	100	100	100
11	4	100	100	100	100	100

FEEBLE-MINDED CHILDREN

Mental age	No. tested	Enumerating cubes	Which is the largest?	Which is the biggest?*	Which is the farthest from you?	Which is the farthest away from you?*
		%	%	%	%	%
2&3	19	0	0	0	0	0
4	13	0	8	46	23	31
5	17	29	35	82	24	75
6	23	52	44	96	52	83
7	25	92	92	96	56	88
8	20	90	100	100	80	95
9	18	100	100	100	95	100
10	11	100	100	...	100	100

TEST 6a.

Examiner: "Are large things heavier or lighter than small things?"

In the case of the normal children of 6-year mentality, 72 per cent. succeeded in this test; of the feeble-minded subjects of the same mental age only 48 per cent. passed the test. Only 2 of the 68 public school children of the 7-year mental level failed the test; these were both feeble-minded cases.

*Question only asked after the main question had been missed. The column includes those who succeeded with the main question and the substituted question.

The character of the failures for test 6a was no response, repetition of last word, "lighter," and "I don't know." When the correct response was given in just one word, "Heavier," the examiner always put a test question, "What do you mean?" This was to see that the subject was not merely repeating. The reply was usually, "Large things are heavier."

From examining the responses it was found that the children of the higher mental ages tended to *qualify their statements.* They would say, "Well, that *depends* upon the material" (the stuff or the thing). "Large things are *usually* heavier," or use such words as "many," "some," "sometimes," "often," or give a conditional sentence using "if" or "when." The question suggests that large things are either heavier or lighter than small things. They tended to resist this suggestion.

Account was made of all those who had so qualified their response to this first question.

	NORMAL CASES			FEEBLE-MINDED CASES		
Mentality	No. tested	Qualified answers	% Qualified	No. tested	Qualified answers	% Qualified
11 yrs.	4	3	75	5	4	80
10 yrs.	21	5	24	10	2	20
9 yrs.	27	4	15	18	2	11
8 yrs.	37	3	8	20	3	15
7 yrs.	43	2	5	25	1	4
6 yrs.	37	0	0	23	0	0

Because the children of 11-year mentality so generally considered before replying and those of the lower years did not, it was thought well to carry the test further. Public school children in 2 sixth grades, 3 fifth grades and 1 fourth grade were asked this question. At-age children in these grades are supposed to average 12, 11 and 10 years respectively. The answers were given in writing. The question was presented to the children by examiner in this way, "Write what you would reply to a person who asked you, 'Are large things heavier or lighter than small things?'" Over-age cases were not discarded. All replies were considered.

	No. tested	Qualified answers	% Qualified answers
Sixth Grades	72	58	81
Fifth Grades	111	76	68
Fourth Grades	33	9	27

Although from the conditions under which this was given (group test, writing, etc.) it is not quite comparable to the rest of the data, it is yet an interesting side light.

Twenty normal adults were also asked question 6a; they all gave qualifying answers immediately. After the response each was asked to give the picture that had been in his mind as he had answered. One said that he had not been conscious of a picture. All of the others had had concrete images but had not woven them into their responses. These pictures were just such as had been given by the older children in response to the next question, 6b.

From this it would seem that although children of 7-year mentality succeed in the test, yet it is not until they are of 11- or 12-year mentality that they stop to consider and give a qualified answer.

In the discussion of this first question Professor De Sanctis only considers it as a preliminary one and only uses it to prepare the subject for the main question, which follows, 6b. Dr. Decroly uses both 6a and 6b as sub-questions and only asks them if a subject has failed in a question which he puts first, "Are the largest objects necessarily the heaviest?" From the wording this asks the subject to consider. This was the original form used by De Sanctis.

If note is made of the qualified answers, it would seem that the question is quite valuable in itself and might be used among the tests for the upper years.

TEST 6b.

"How does it happen that sometimes small things are heavier than large things?"

The responses to this question were very interesting. When the reply given was not clear the examiner asked, "What do you mean?" No other variation was made. It was found that without this question many answers could not be interpreted fairly. For example, one child replied, "They make it that way," which might have been credited as a failure, but after being asked what he meant, he added, "Why, they cut out a hole, put more wood in it, and then lock it up," which is about on the level of the replies (often given) that "the small things have something inside."

The children of 3, 4 and 5 year mentality either did not reply, said they did not know, or repeated part of the question, very often the last words, and when the question was repeated they often changed their response. For example, "Large things" then "Small things." Of 41 children of mentality of 5 years, normal and feeble-minded, only 2 replied in a way that might be credited, "They put too much sugar or coffee in it," "They put a little too much in little things than they do in larger things." These were both cases of normal children.

Of 36 normal children of 6-year mentality 7 gave responses that could be credited. Only one child mentioned a metal, iron. Characteristic answers:

"Cause they make heavier things inside—little stones or something."

"The big thing might be like a bundle of papers and the little thing like a rock."

"They put more wood *inside*."

Among the failures of this year were quite a few silly answers: "Because they are round," "Cause they go too fast," "Cause there are so many branches," "Cause your arm hasn't got no strength to it."

A few six- and seven-year-old children seemed to think that large things meant tall things. One said, "The small things are fatter. Our little baby weighs more than me." Several said that small things were thicker, but by the movements of their hands one could see that they meant wider. As one 7-year-old child expressed it, "Because they are square like this (drawing the hands apart) and the others are long like this (holding hand high above the table) and they carry more up in the air." Quite a few children of the higher mental development gave as an answer that the smaller object was thicker, but when asked, "What do you mean?" they explain that the larger object had thin sides and the small object had thick sides.

Characteristic of the replies of 9-, 10- and 11-year-old mentality were the statements that the smaller object might be made of different material, that it might be solid, have thicker sides, or have something in it to make it heavy. When illustrations were given, they mentioned small objects of dense material, usually a metal, such as iron. Out of 52 normal children of these mental ages only 2 gave responses differing from the above in that they gave illustrations of more familiar objects.

Of the 32 children of 8-year mentality who succeeded in the test (37 tested), 10 gave very concrete illustrations of familiar objects—"nickel heavier than paper dollar," "small heavy ball and light football," "it might be rotten in the middle," "small dish with meat on it, large dish empty," "small wagon full of chairs, large wagon empty," "small bag of clothes, large bag not full," "something with 'marble' in it or 'blocks' or 'watermelons' or 'balls' or 'pennies.'" One child said, "Maybe they have more packages in it. Maybe a lot of things in the little bundle." Although many children of 7 and 8 years mental age gave just such responses as were described of the higher years, yet among the former were a greater proportion of replies of a more concrete character.

TEST 6c.

Examiner: "Do distant things looker smaller or larger than near things?"

In this test the words "far away" were substituted for "distant" when the meaning of the latter was not understood. When the subject responded correctly with but one word, "Smaller," the examiner always asked, "Which things look smaller?" In this way cases of pure repetition were detected.

Of the normal 6-year-old children 61 per cent. passed this test, while 98 per cent. of the children of 7 years succeeded. In the feeble-minded group it was passed by only 60 per cent. of the 7-year-old children; 85 per cent. of the 8-year-old children succeeded.

TEST 6d.

Examiner: "Do they only appear smaller or are they really smaller?"

The word "really" here inserted was suggested by De Sanctis and appears in his description of the tests published in L'Année Psychologique, 1906.

After the subject had succeeded in answering the last question, "Do they only appear smaller or are they really smaller?" another question, "How do you know?" was asked to see if the success was due to chance and on what experience the subject was basing his reply. "Look" was substituted for "appear" where the subject did not know the meaning of the latter.

No child under a mental age of 6 years succeeded in passing this test. Out of 36 normal 6-year-old children examined, 16 responded correctly. The replies to the test question were of such a nature as to leave no doubt that these children understood.

"They ain't really little because they look big when you get close."

"Once we were on a high place and looked down. It was a tiny trolley car, but when we got down it was a great big one."

"Because houses can't be small, and they look small far away. Dog houses can be small."

"I saw my father once in a wagon, way off, and he looked little."

De Sanctis says that "This question will show whether the subject is aware of optical illusions." There were a number of children who after insisting that the distant object was "really smaller" and being asked, "How do you know?" replied, "Because when they are far away they are awful little. When you get to them they are big." In one of these cases the examiner asked, "Then are the far away things really smaller?" and the normal 7-year-old subject replied, "Yes, but *not when you get up to them.*" His idea evidently was that they *really looked* smaller—again a language difficulty rather than a question of not being aware of the facts.

Eighty-three per cent. of the normal 7-year-old children passed this test, but in the case of the feeble-minded it was not until we reached the 9-year-old group that more than three-fourths of the cases passed (94 per cent.).

Great care was taken in asking these four abstract question of Test 6 that they be given slowly and with expression and that the important words be spoken with equal emphasis. Answers were taken verbatim. The order of the adjectives in 6a and 6c and that of the verbs in 6c must not be reversed. The experimenter is cautioned not to have any blocks exposed on the table during the test.

The following tables give a summary of our results:

TABLE I.

RESULTS WITH NORMAL CHILDREN.

Arranged According to Mental Age.

Mental age	No. of Cases	De Sanctis Tests—Per Cent. Passed											Ave. Chron. age
		1	2	3	4	5a	5b	5c	6a	6b	6c	6d	
3	7	100	29	29	0	0	0	0	0	0	0	0	4.3
4	8	100	88	88	38	0	38	25	0	0	0	0	4.3
5	24	100	96	100	83	29	96	58	29	8	12	0	5.4
6	36	100	100	100	100	75	97	74	72	19	61	44	6.2
7	43	100	100	100	100	98	100	98	100	53	98	83	7.5
8	37	100	100	100	100	100	100	100	100	86	100	95	8.8
9	27	100	100	100	100	100	100	100	100	90	100	92	9.9
10	21	100	100	100	100	100	100	100	100	100	100	100	10.3
11	4	100	100	100	100	100	100	100	100	100	100	100	11.4
Total,	207												

TABLE II.

RESULTS WITH FEEBLE-MINDED SUBJECTS.

Mental age	No. of Cases	De Sanctis Tests—Per Cent. Passed 1	2	3	4	5a	5b	5c	6a	6b	6c	6d	Ave. Chron. age
2	13	77	15	31	0	0	0	0	0	0	0	0	8.8
3	6	100	17	33	0	0	0	0	0	0	0	0	11.9
4	13	100	69	77	38	0	46	31	0	0	0	0	13.4
5	17	100	82	94	76	29	82	75	12	0	0	0	13.1
6	23	100	100	100	91	52	96	83	48	0	13	4	15.4
7	25	100	100	100	100	92	96	88	92	32	60	32	13.8
8	20	100	100	100	100	90	100	95	100	60	85	60	16.3
9	18	100	100	100	100	100	100	100	100	78	100	94	21.9
10	10	100	100	100	100	100	100	100	100	91	100	100	26.1
11	5	100	100	100	100	100	100	100	100	100	100	100	21.1
Total,	150												

TABLE III.

RESULTS WITH NORMAL CHILDREN.

Arranged According to Chron. Age.

Chron. age	No. of Cases	De Sanctis Tests—Per Cent. Passed 1	2	3	4	5a	5b	5c	6a	6b	6c	6d
3	3	100	0	0	0	0	0	0	0	0	0	0
4	12	100	92	92	33	8	42	42	0	0	0	0
5	33	100	91	97	88	52	91	54	46	15	27	10
6	32	100	100	100	97	72	97	84	81	34	66	56
7	33		100	100	100	91	100	94	91	49	97	82
8	24				100	100	100	100	100	67	100	96
9	36				100	100	100	100	100	92	100	94
10	21				100	100	100	100	100	91	100	91
11	9				100	100	100	100	100	100	100	100
12 and 13	4				100	100	100	100	100	100	100	100
Total,	207											

Several points worthy of note are manifest in these tables.

First. Each test without exception shows decreasing difficulty as age increases, that is, the older the children the larger percentage pass the test.

Second. De Sanctis' arrangement is not quite in order of difficulty. For example, 5a (how many) requires an older mind than 5b or 5c (largest or farthest); and 6b (how does it happen that sometimes small things are heavier than large things), ranks as the hardest question in the list.

Third. Normal children do better than defectives of the same mental age.

It is possible, since the children at the Training School are tested each year, that they have learned from their experience with the tests and are rated a little too high, so that when given a new task they are at a disadvantage as compared with the children who have not been repeatedly tested.

Professor Pintner in an article in the *Psychological Clinic*, July, 1915, claims that "The Binet Scale contains some tests which depend largely upon early experience and hence the older the child tested the more liberal is the estimation of his mentality as computed by the present Binet Scale." Thinking that this might help explain the difference in the two groups, the feeble-minded over sixteen years of age were compared with those under that age in all the mental levels. If these older cases are rated too liberally by the Binet Scale the average number of the De Sanctis' tests that they passed ought to be less than for the corresponding group of younger subjects. This division did raise the average number of tests in five of the years for the under sixteen year group, but only to a very slight degree and not enough to account for the difference between the two groups.

That subtle difference between the normal and the defective Dr. Goddard discusses in his book, "Feeble-mindedness," and reminds the reader that "It must not be forgotten that the defective child lacks energy. He is consequently not active, inquisitive, interested like the normal * * * in spite of these differences to say that he is like a normal child of the same mental age is to describe him much more accurately than can be done in any other way." This is a point that needs explanation but evidently must await further data.

Fourth. Most important of all is the evidence of the high value of these tests as tests of mentality. A glance at the tables and curves shows that the tests are as nearly ideal as any yet proposed. Altho the number of children tested for each chronological age is small and a more extended study would be necessary for a decided standardization—yet the sudden rise in ability to do the test with increasing age makes it easy to suggest the standard.

The following table shows the mental age indicated by each test.

Test	No.	1	a	2-year test
"	"	2	"	4- or 5-year test
"	"	3	"	4-year test
"	"	4	"	5- " "
"	"	5a	"	7- " "
"	"	5b	"	5- " "
"	"	5c	"	6- " "
"	"	6a	"	6- or 7-year test
"	"	6b	"	9-year test
"	"	6c	"	7- or 8-year test
"	"	6d	"	7- or 8-year test

This table is interesting when one remembers the claims of the author, "That intellectual defect of a very high degree is established when the subject cannot pass the two simplest tests; of a moderate degree if the subject cannot go beyond the fourth or having passed the fourth, does the fifth with much difficulty and with many errors; of a slight degree if the subject succeeds in five tests but finds the sixth difficult."

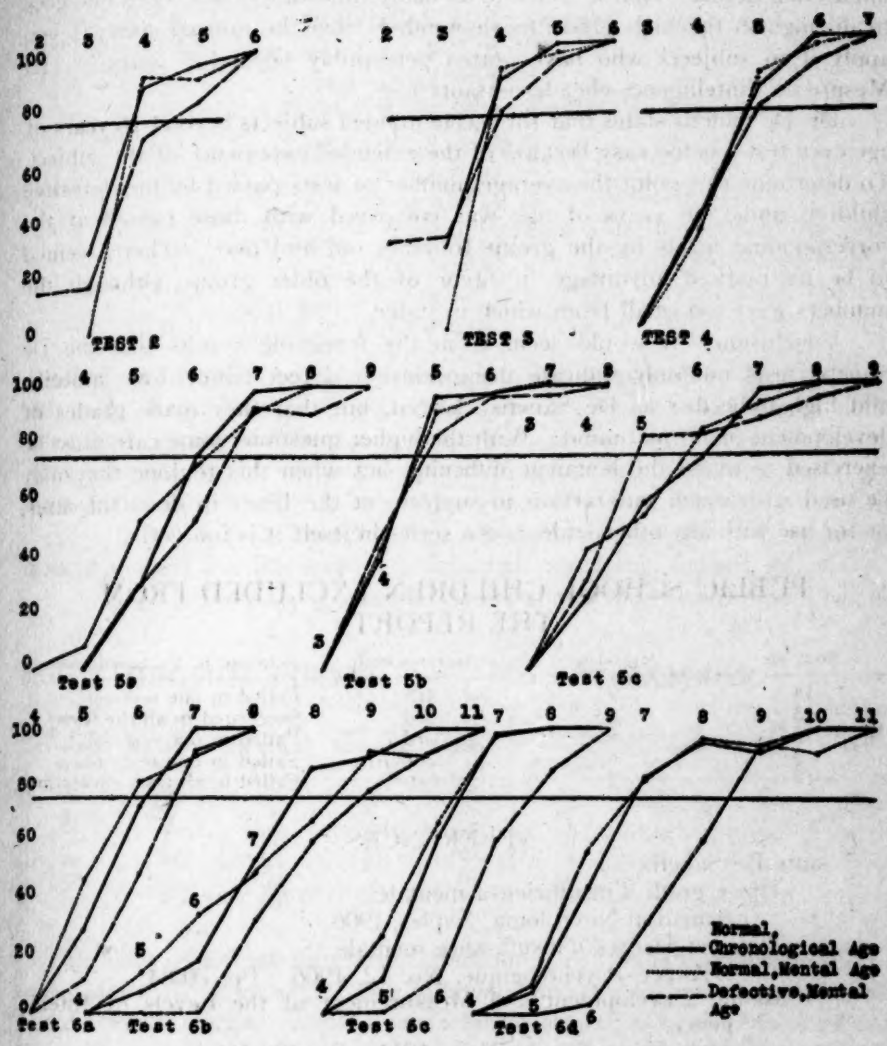
Dr. De Sanctis considers that ability to pass all six tests indicates normal intelligence. Our results are as follows:

	NORMAL			FEEBLE-MINDED				
Mental age	No. of Cases	No. that passed all tests	% that passed all tests	No. of cases	No. that passed all tests	% that passed all tests	No. over 16 yrs. that passed all tests	% over 16 yrs. that passed all tests
6	36	6	16	23	0	0	6	0
7	43	21	50	25	2	8	6	16
8	37	30	81	20	9	45	7	57
9	27	23	85	18	13	72	14	64
10	21	21	100	10	9	90	8	88
11	4	4	100	5	5	100	5	100

No defective below 7-year mentality passes all the tests, while in the normal group none below 6-year mentality pass all the tests. It would seem that by "defective" De Sanctis meant about what we include under "imbecile," since morons as a group are successful to a high degree in passing all the tests (of 53 morons 36 or 68 per cent. passed all).

It is particularly interesting to notice in the normal group that of 79 children tested of 6 and 7 year mentality only 34 per cent. passed all the tests, while of 64 children of 8 and 9 year mentality 83 per cent. passed all the tests. The rise at the 8 year level is very marked.

The argument is strengthened by noting Dr. Decroly's comment after working with these tests—"The series certainly gives excellent results with children and *'adolescent faibles'* from 7 to 16 years. One can by the series,



CURVES SHOWING THE DEVELOPMENT OF ABILITY TO DO THE DIFFERENT TESTS

Ordinates are percents passing: abscissas are years. Horizontal line shows the 75% limit.

less easily than by the Binet tests, differentiate the different degrees of intellectual defect. And it seems to us many times imperfect when one goes to distinguish the high grade feeble-minded from the normal state, if you apply it to subjects who have gotten perceptibly beyond 7 years." (La Mesure de I'intelligence chez les enfants.)

Dr. De Sanctis states that for feeble-minded subjects beyond 16 years of age even test 6 is too easy because of the extended experience of the subject. To determine this point the average number of tests passed by the defective children under 16 years of age was compared with those passed at the corresponding levels by the group 16 years old and over. There seemed to be no marked advantage in favor of the older group, although the numbers were too small from which to judge.

Conclusion. It would seem from the foregoing results that the De Sanctis tests not only indicate the grades of defect (idiot, low imbecile, and high imbecile) as De Sanctis claimed, but that they mark grades of development of normal mind. With the higher questions some care must be exercised to avoid the language difficulty, but when this is done they may be used with much satisfaction to supplement the Binet in doubtful cases, or for use with any other scale. As a series in itself it is too verbal.

PUBLIC SCHOOL CHILDREN EXCLUDED FROM THE REPORT

Chron. age	Mental age	Grade in school	Response to De Sanctis tests
14	9	4th	Failed in one test—6b.
13	8	3rd	Succeeded in all the tests.
13	8	3rd	Failed in one test—6b.
9	6	2nd	Failed in one test—6b.
7	3	1st	Failed in all tests except first

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The Story of Tommy

Murial Lichtenberger

One afternoon in May two years ago our field worker came into the grounds with a very dirty, bedraggled, squirming child under her arm. He was just a little fellow of about five years, we afterwards learned, altho he looked much younger. His hair was black and his eyes a snappy brown. He was taken to the cottage and immediately put into a tub. After a lively struggle and much scouring he emerged white and smiling. He then began to examine his surroundings. A very close watch had to be kept on him for the world was his and he was not overly careful of it.

Tommy's admission blanks show that his subnormality is probably due to a degenerate family history. He is of Jewish stock. His parents were born in Russia. He is the baby of a family of six, all more or less defective. His father died quite young of consumption. The date of Tommy's birth is not known. His mother said he was very active from birth, but was very slow to learn to walk.

When he first went to school he seemed a hopeless little case. He was so excitable and determined to fight any restriction whatever. He ran around the room picking up objects and dropping them, climbing on chairs, or tables, and down again, and on to something else in a flash. He would climb on a window sill or a high railing with no fear of danger. Sitting on his chair or staying in his line was not to be thought of. He is such a wiry little mite. If he was put in his place he would slide to the floor and wait until he wasn't watched then jump up and run. One day I found him on the floor with his feet crossed over his head; when I started toward him he rolled over backwards.

Shouting and chattering is Tommy's chief mode of expressing himself, altho he now has a vocabulary of 35 or 40 words.

After a short time Tommy was taken from school for a few months, because he seemed too young—but he did not improve, so it was concluded that it was training he needed, not time. His improvement has been steady, tho very slow. When he first returned the typical Mongolian trait of stubbornness began to present itself. It would take 15 or 20 minutes before he would go to or from his classroom. He understood the commands, but simply did not want to be restricted. This trait, if left alone, would soon make our little fellow very hard to live with. When left alone his vivid imagination would have full sway.

He still plays his own way, altho he has learned to wait until free time, when he will walk to the centre of the floor, jabber and gesticulate for a few moments, make a bow and begin clapping, or he will play a game of baseball. A special delight of his is to remain behind when the class leaves the school room, line the chairs up, and play choo-choo. These and other imitations he will do contentedly whether he had an audience or not. Needless to say at first the table with its materials held no interest for him.

In about five months a little improvement was seen. Tommy seemed less excitable and would stay in his place longer. He then started to use his materials. He strung four beads at first, then, too, he began to take part in the morning songs, by making gestures in the finger plays. He now can follow all the moves in "Here's a Ball for Baby" and "In My Garden Bed."

At this time another little Mongolian boy came into the class and they became fast friends, and there was a little competition. Tommy became interested in more things. One day he tried to use scissors—because he saw the other little fellow trying, but he became impatient and tore his paper.

Since the first of the year all of the little fellow's reports have shown his improvement. The cottage reports his being in good health, with a good appetite (he uses a fork now). He is unable to wash himself, altho he tries to help. He will take off his clothes when they are unbuttoned—take off his socks and put them in the sandals. He is a proud little boy and likes to look nice. One day he came to school in a new bright red sweater—he was so proud he didn't want to take it off until he had gone to each child for his approval. About this time he learned to walk up and down stairs instead of crawling.

Tommy's disposition of late is better. He never cries or sulks, and his stubborn spells are far less frequent. He has shown temper on rare occasions when he is stopped in the process of tearing a book or teasing a child, but his habits are fairly good.

He is growing to like to march in school and play games such as "Little Mice" and "Soldier Boy." When he goes to the cottage he tries to show his attendant what he did in school. He likes to play blocks now and the sand keeps his interest for a few minutes. He will also sew a few stitches on a card. He likes to lead his line to and from the room. He will hold his head high and be most important. He delights in imitating the big boys by running errands, getting keys or pretending to care for larger boys. He is very jealous of the baby of our class and the merest suggestion that he is in place and Tommy isn't, is frequently sufficient to send him where he belongs. If the baby is being petted one can be sure Tommy is not far away ready to receive his share. He is very affectionate.